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Method and Device for Producing a Peripherally Closed Hollow Profile

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] This application is a national stage of PCT International Application No. PCT/EP2005/001283, filed February 9, 2005, which claims priority under 35 U.S.C. § 119 to German Patent Application No. 10 2004 007 056.3, filed February 13, 2004, the entire disclosures of which are herein expressly incorporated by reference.

BACKGROUND AND SUMMARY OF THE INVENTION

[0002] The present invention relates to a device and a method of producing a peripherally closed hollow profile.

[0003] German patent document DE 195 30 056 A1 discloses a method of the generic type in which a branch is supported at its cap by a yielding counterholder while it is being shaped from a hollow profile blank by means of internal high pressure. In the marginal region of the cap, the branch has a large radius, so that only its center region bears against the end face of the counterholder. The supporting surface formed by the end face of the counterholder is enclosed by a collar-like, concave cutting edge. The center region of the cap of the branch is thus located in a hollow of the counterholder.

[0004] After the desired height of the branch is reached, the forming pressure is considerably increased, so that the radius in the marginal region of the cap of the branch decreases and the latter is pressed against the vertically projecting cutting edge. As a result, the cutting edge cuts an encircling groove in the cap. The counterholder is now displaced toward the branch against the